Remarks/Arguments

1. Claim Objections

Claims 5, 15, and 16 were objected to on the basis that they each included a "magnetic coupling." It was requested that this element be changed to an "electro-magnetic coupling." In response, claims 5, 15, and 16 are being amended in accordance with this request.

2. Claim Rejections 35 U.S.C. § 102

Claims 1-13, 15, 19-31, 33, 37-45, 49, and 53 stand rejected under 35 U.S.C. § 102(b) as being anticipated by Chapman, III, U.S. Patent No. 3,724,589. Chapman '589 was cited as disclosing an electro-magnetic coupling device comprising a magnet and a coil (page 2 of the Office Action).

In response, a claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference. *Verdegaal Bros. v. Union Oil Co. Of California*, 814 F.2d 628, 631, 2 USPQ 2d 1051, 1053 (Fed. Cir. 1987).

Independent claim 1 recites "an electro-magnetic coupling device ... capable of *coupling acoustic energy* within the wellbore casing." On the other hand, the coupling device of Chapman '589 is a "rotating magnetometer 23" and "is fixed relative to transducer 22 to provide information as to the aximuth [sic] location of the directional acoustic transducer 22." Column 5, lines 35 – 37. The magnetic field produced the magnetometer 23 is described in column 9, lines 37 – 42 of Chapman '589.

> "... magnetic flux produced by the magnet 63a will be coupled via the magnetic member 63b to the cylindrical projection 69a on one side of the shell 64 and return circumferentially around the shell 64 to the cylindrical projection 69b on the other side thereof."

Therefore, according to Chapman '589, the magnetometer 23 does not couple acoustic energy within the wellbore casing. Accordingly, the device of Chapman '589 does not include the capability of coupling acoustic energy with the wellbore casing and thus each and every element of claim 1 is not found within this reference. It is therefore respectfully requested that Chapman '589 be removed as a basis for the rejection of claim 1. Since claims 2-13, 15, and 19 all depend from claim 1, directly or indirectly, it is further requested that the rejection of these claims under Chapman '589 be removed as well.

With regard to independent claim 20, this claim also recites a coupling device "comprising a coil and a magnet ... combinable to produce an energy field ... thereby magnetically coupling said magnetic coupling transmitter with the wellbore casing ...". As noted above, Chapman '589 does not disclose a coupling device magnetically coupled to wellbore casing. Thus for the same reasons that claim 1 is not anticipated by Chapman '589, neither is claim 20. As such, it is respectfully requested that the rejection of claim 20 under Chapman be removed, as well as dependent claims 21-31, and 33.

Independent method claim 37 includes the elements of "sensing the acoustic energy propagating through the wellbore casing; and analyzing the acoustic energy propagating through the wellbore casing." Chapman '589 does not consider sensing or analyzing acoustic energy that propagates through wellbore casing. In contrast, the "casing" discussed in Chapman '589 concerns the covering over the disclosed device. "As shown in FIGS. 2B and 3 a shell or casing 64 made of a magnetic material is concentrically disposed around the enlarged portion 21b of the shaft 21."

Column 9, lines 21-23. Thus each and every element of claim 37 is not found in Chapman '589. It is therefore respectfully requested that the rejection of claim 37 under Chapman '589 be reconsidered and removed, as well as the rejection of claims 36-45, 49, and 53 that depend from claim 37.

3. Claim Rejections 35 U.S.C. § 103

In the action the Examiner noted his presumption "that the subject matter of the various claims was commonly owned at the time any inventions covered therein..." and applicant was "advised of the obligation under 37 C.F.R. § 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made..." In response, applicants confirm that the subject matter of the claims was commonly owned at the time of the invention.

Claims 14, 16-18, 32, 34-36, 46-48, and 50-42 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Chapman '589. In response, to sustain an obviousness type rejection under 35 U.S.C. § 103, the cited references must teach or suggest all the claim limitations of the rejected claims. Claims 14 and 16-18 depend from claim 1, as noted above Chapman '589 does not teach or suggest all claim limitations of these claims. Accordingly, Chapman '589 is an inappropriate reference to support of rejection of these claims under 35 U.S.C. § 103(a). Thus this rejection should be reconsidered and removed. Similarly, claims 34-36 and claims 46-48, and 50-42 (that depend from claims 20 and 37 respectively) depend from claims having limitations not taught or suggested by Chapman '589. Thus, the rejection of these claims under 35 U.S.C. § 103(a) in view of Chapman '589 should be removed as well.

Conclusion

The claims have been amended and corrected to respond to the examiner's objections and rejections. It is respectfully urged that in light of the above stated amendments and submissions that applicants' claims are patentable in light of the prior art. It is believed that the foregoing response is full and complete and timely filed. Applicants respectfully request reconsideration of the instant application in light of the foregoing response and amendments.

Should the Examiner have any questions, comments or suggestions in furtherance of the prosecution of the application, the Examiner is invited to contact the Applicants' representative by telephone or fax.

Respectfully submitted,

Date: June 19, 2006

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